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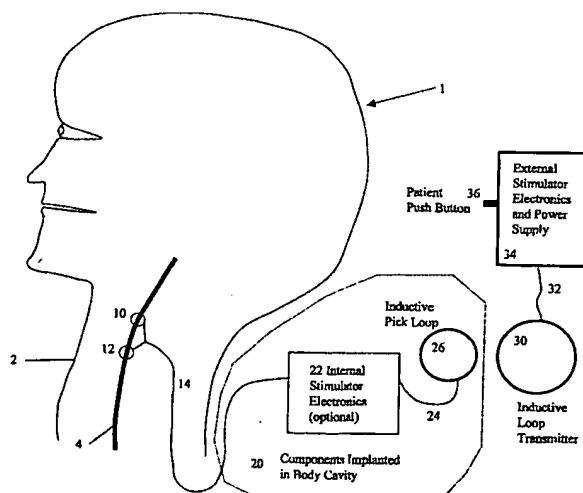
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- (71) Applicant (for all designated States except US): **THE JOHNS HOPKINS UNIVERSITY [US/US];** 3400 North Charles Street, Baltimore, MD 21218 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **LESSER, Ronald, P.** [US/US]; 709 Stevenson Lane, Baltimore, MD 21286-7905 (US). **WEBBER, Robert, W., S.** [US/US]; 5471 Autumn Field-Court, Ellicott City, MD 21043-7097 (US).
- (74) Agents: **JENSEN, Steven, M. et al.;** Edwards & Angell, LLP, P.O. Box 55874, Boston, MA 02205 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
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(54) Title: SYSTEM AND METHOD FOR TREATING NAUSEA AND VOMITING BY VAGUS NERVE STIMULATION



(57) Abstract: A system and method for treating nausea and vomiting are provided, including one or more electrodes (10, 12) applied on or under the skin, the electrodes being connected to an external current source (34). The electrodes can be implanted under the skin and connect to internal stimulator electronics (22), which can form a magnetic inductive link to the external current source (34). Alternatively, the electrodes can be placed on the skin and directly linked by wires to the external current source. As a further alternative, the vagus nerve can be directly stimulated in the neck, or the esophagus, stomach, duodenum, or intestines can be directly stimulated by magnetic stimulation. The electrodes can stimulate the vagus nerve in the neck to reduce nausea and vomiting, or can be arranged near the chest or abdomen, so as to stimulate the esophagus, stomach, duodenum or intestines. Because the current source is provided outside the body, it is not necessary to implant batteries or another power supply in the body.

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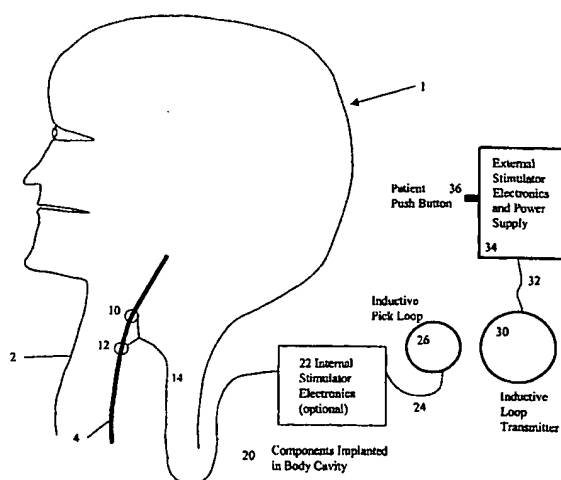
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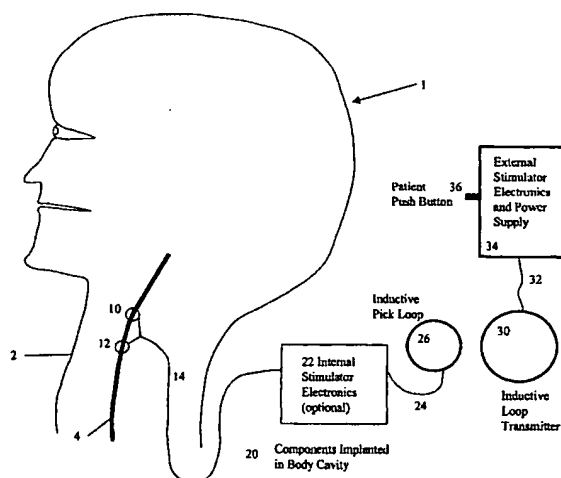
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